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Date: August 6, 2004

By: Kay L. Gaviglio

**PATENT**  
**Docket No. GC571-2-C1**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application:	)	
	)	
Davis et al.	)	Group Art Unit: 1651
	)	
Serial No.: 10/791,628	)	Examiner: Unassigned
	)	
Filed: March 1, 2004	)	
	)	
For: SPECIFICALLY TARGETED CATALYTIC	)	
ANTAGONISTS AND USES THEREOF	)	

**Information Disclosure Statement**

Box Amendment  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith patents, publications or other information (listed on the attached Form PTO-1449 and attached thereto) of which they are aware, that they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

This Information Disclosure Statement:

- (a) ☐ accompanies the new patent application submitted herewith. 37 CFR §1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry into the national stage of a PCT application as set forth in 37 CFR §1.491.
- (c) ☒ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits.
- (d) ☐ is filed after the first Office Action and more than three months after the application filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final

rejection or a notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180.00) set forth in 37 CFR §1.17(p) or a certification as specified in 37 CFR §1.97(e), as checked below. Authorization to charge Deposit Account No. 07-1048 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement is provided in the Transmittal Letter submitted herewith in duplicate.

(e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by authorization (in the Transmittal Letter submitted herewith in duplicate) to charge Deposit Account No. 07-1048 the fee (\$180.00) set forth in 37 CFR §1.17(l)(1) and a certification as specified in 37 CFR §1.97(e), as checked below. **This document is to be considered as a petition requesting consideration of the Supplemental Information Disclosure Statement.**

**[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR §1.97(e) may need to be completed.]** The undersigned certifies that:

☐ Each item of information contained in the Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

☐ No item of information contained in this Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Those patent(s) or publication(s) which are marked with an asterisk (\*) on the attached Form PTO-1449 are not supplied because they were previously cited by or submitted to the Office in a prior application, Serial No. 09/556,466, filed April 21, 2000, and relied upon in this application for an earlier filing date under 35 USC 120.

A concise explanation of relevance of the items listed on PTO-1449 is:

- ☒ not given
- ☐ given for each listed item
- ☐ given for only non-English language listed item(s)
- ☐ in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references.

The Examiner is reminded that a "concise explanation of the relevance" of the submitted prior art "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention." MPEP §609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR §1.97(b), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR §1.98 and MPEP §609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,



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Date: August 13, 2004

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PATENT AND TRADEMARK OFFICE

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(PTO-1449)

**ATTY. DOCKET NO.**  
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**SERIAL NO.**  
10/791,628

**APPLICANT**  
Davis et al.

**FILING DATE**  
March 1, 2004

**GROUP ART UNIT**  
1651

**REFERENCE DESIGNATION**

**U.S. PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	NAME	Class	Subclass	Filing Date If Appropriate
	A1	*5,403,737	04/04/95	Abrahmsen et al.			
	A2	*5,629,173	05/13/97	Abrahmsen et al.			
	A3	*5,316,935	05/31/94	Arnold et al.			
	A4	*5,208,158	05/04/93	Bech et al.			
	A5	*5,244,791	09/14/93	Estell			
	A6	*5,316,941	05/31/94	Estell et al.			
	A7	*5,955,340	09/21/99	Bott			

**FOREIGN PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	Subclass	TRANSLAT'N
	B1	*EP 3 328 229 A1	08/16/89	EP			yes
	B2	*WO 91/16423	04/18/91	PCT			yes
	B3	*WO 96/27671	02/27/96	PCT			yes
	B4	*WO 97/37007	10/09/97	PCT			yes
	B5	*WO 98/23732	06/04/98	PCT	C1 2N	9/00	yes

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)**

	C1	*Abrahmsen et al., "Engineering Subtilisin and Its Substrates for Efficient Ligation of Peptide Bonds in Aqueous Solution," <u>Biochemistry</u> , 30:4151-59 (1991)
	C2	*Akabas et al., "Acetylcholine Receptor Channel Structure Probed in Cysteine-Substitution Mutants," <u>Science</u> , 258:307-310 (1992)
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	C7	*Bell et al., "Kinetic Studies on the Peroxidase Activity of Selenosubtilisin," <u>Biochemistry</u> , 32:3754-3762 (1993)

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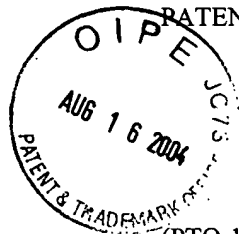
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C10	*Betzel et al., "Crystal Structure of the Alkaline Proteinase Savinase <sup>TM</sup> from <i>Bacillus lentus</i> at 1.4 Å Resolution," <u>J. Mol. Biol.</u> , 223:427-445(1992)
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(PTO-1449)

**ATTY. DOCKET NO.**

GC571-2-C1

**SERIAL NO.**

10/791,628

**APPLICANT**

Davis et al.

**FILING DATE**

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**GROUP ART UNIT**

1651

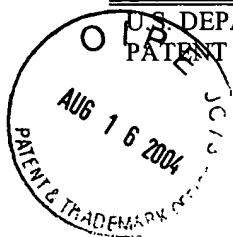
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C26	*Dickman, M., et al., "Chemically modified mutants of subtilisin bacillus lentus catalyze transesterification reactions better than wild type," <u>Tetrahedron Asymmetry</u> , (11. Dec. 1998) 9/23 4099-4102, XPO000901276.
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C33	*Gron et al., "A Highly Active and Oxidation-Resistant Subtilisin-Like Enzyme Produced by a Combination of Site-Directed Mutagenesis and Chemical Modification," <u>Eur. J. Biochem.</u> , 194:897-901 (1990)
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C41	*Kaiser, "Catalytic Activity of Enzymes Altered at Their Active Sites," <u>Agnew. Chem. Int. Ed. Engl.</u> , 27:913-922 (1988)
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C49	*Kokubo et al., "Flavohemoglobin: A Semisynthetic Hydroxylase Acting in the Absence of Reductase," <u>J. Am. Chem. Soc.</u> , 109:606-607 (1987)
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C59	*Nakatsuka et al., "Peptide Segment Coupling Catalyzed by the Semisynthetic Enzyme Thiolsubtilisin," <u>J. Am. Chem. Soc.</u> , 109:3808-10 (1987)
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C61	*Neet, K.E. and Koshland, D.E., "The Conversion of Serine at the Active Site of Subtilisin to Cysteine: A 'Chemical Mutation,'" <u>Proc. Nat. Acad. Sci. USA</u> , 56(5):1606-1611.
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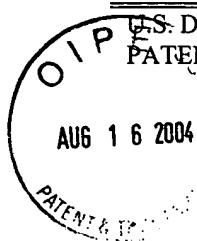
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